



# **ONSITE SEWAGE IN KENTUCKY:**

*An assessment of issues and policy  
options to improve onsite sewage  
management in Kentucky.*

**Prepared by:**

*The Kentucky Environmental Quality Commission*

**November 15, 1999**

**Commonwealth of Kentucky**  
**Paul E. Patton, Governor**



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- ❖ monitor and report on environmental trends and conditions,
- ❖ promote partnerships to improve and protect the environment for future generations, and
- ❖ serve as an advisory board to the Governor and state officials on environmental matters.

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## Onsite Sewage in Kentucky: An Urgent Call for Action



Every day thousands of gallons of untreated sewage are improperly discharged to land and waterways, threatening public health and safety. This straight pipe is among hundreds known to exist in Eastern Kentucky.



This creek in Western Kentucky is laden with sewage from straight pipes and failing onsite sewage systems.



An EQC Roundtable was convened to discuss onsite sewage policy needs and options in Kentucky. “The threat is real, the needs are great, and this discussion is long overdue,” commented one of the 37 participants.

# ONSITE SEWAGE IN KENTUCKY:

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# Onsite Sewage In Kentucky:

## Policy Options to Improve Onsite Sewage Management in Kentucky

### *Recommendations at a Glance*

Recommendation	Funding required/Sources	Legislation/Regs required
<b>Key Recommendations</b>		
<b>1. Resources and Funding</b> Staff and resources be committed to adequately support the Cabinet for Health Services Onsite Sewage Program.	Yes. To be determined. Sources include an increase in the \$30 Onsite Sewage Permit Fee and/or state general fund appropriations.	Amendment to CHS regulations needed to increase Onsite Sewage Permit Fee.
<b>2. Onsite Sewage Action Plan</b> The Natural Resources and Environmental Protection Cabinet and the Cabinet for Health Services jointly prepare an Onsite Sewage Action Plan to assess and prioritize program needs, promote interagency cooperation, and implement strategies to address onsite issues in Kentucky.	None required.	None required.
<b>3. Onsite Inventory and Management Strategies</b> A county-by-county inventory of straight pipes and failing septic systems be conducted and management strategies developed to target problem areas.	Yes. \$3 million to ADDs based on inventories underway in 40 PRIDE counties. Sources include state general funds and/or use of State Wastewater Revolving Loan Fund.	Current SRF “intended use” plan does not allow the use of fund for inventories. SRF language would need to be reworked to allow for such inventory work.
<b>4. Infrastructure Planning</b> Counties prepare 20-year countywide wastewater/drinking water infrastructure plans to assess current and projected needs and promote regionalization of services.	Yes. \$6 million over a 5 year period (\$50,000 per county). Sources include state general funds and/or state economic development funds.	Amend KRS 151.114 (water supply planning statute) to provide for countywide infrastructure plans.
<b>5. Onsite Loan and Grant Fund</b> Ky. Infrastructure Authority be directed to develop, with the assistance of other state and federal agencies, a statewide Onsite Sewage Loan and Hardship Grant Program.	Yes. To be determined. Sources include State Wastewater Revolving Loan Fund, Community Development Block Grants, other federal and state sources.	Administrative regulations are necessary to implement the program.
<b>6. Onsite Education Campaign</b> The Natural Resources and Environmental Protection Cabinet work with the Cabinet for Health Services to target a portion of the state’s U.S. EPA Section 319 grant funds to develop an Onsite Sewage Education Campaign in Kentucky.	Yes. \$400,000 from the U.S. EPA Section 319 Nonpoint Source Grant Program. Other state and federal resources may also be available.	None required.
<b>7. Disclosure of Onsite Sewage Disposal</b> Legislation be enacted to provide for disclosure by a seller to a buyer regarding how sewage generated is managed at the property prior to the transfer/selling of property.	None required.	Amendment to existing onsite sewage statute ( KRS 211./350-211.380). Minnesota model.

**Onsite Sewage In Kentucky:**  
**Policy Options to Improve Onsite Sewage Management in Kentucky**  
*Recommendations at a Glance*

<b>Recommendation</b>	<b>Funding required/Sources</b>	<b>Legislation/Regs required</b>
<b>Additional Recommendations</b> <b>8. Farmstead Exemption Revision</b> Eliminate the “written complaint” provision in the farmstead exemption to allow local health departments to respond to public onsite sewage complaints in a more efficient and effective manner.	None required.	Amend KRS 211.350 to eliminate the provision that specifies no inspection or enforcement action can be authorized against an onsite system installed on a “farmstead” prior to 1992 unless a written, verified complaint is received.
<b>9. Administrative Enforcement Tools</b> Strengthen onsite sewage enforcement authority of local health departments to provide for notices of violations and penalties.	May require additional staff resources to process NOVs and collect penalties.	Legislation required to authorize administrative penalties and notice of violations for onsite sewage violations.
<b>10. Require Sewer Tie-ons</b> The state or counties develop the appropriate mechanisms to compel sewer tie-ons.	None required.	State legislation or county ordinances required to clarify language to compel sewer tie-ons.
<b>11. Onsite Sewage Training Center</b> CHS establish an onsite training coordinator and training center.	Yes. To be determined.	None required.
<b>12. Monitoring Onsite Systems</b> Strengthen and enforce monitoring requirements for high maintenance onsite sewage systems.	None required.	May require revisions to onsite sewage/residential package plant monitoring regulations.
<b>13. Onsite Management Districts</b> Establish a demonstration project to test the feasibility of onsite sewage operation and maintenance management districts.	May require seed grants to set up demonstration projects.	None required.
<b>14. “Smart Growth” Plans</b> Counties and cities be provided incentives to develop “Smart Growth” plans to overcome political and geographical boundaries and promote regionalization of wastewater services.	May require planning grants to assist counties prepare plans.	Legislation required. Tennessee model.
<b>15. Wastewater Strategies Prior to Extension of Waterlines</b> Cities and counties assess sewage treatment needs and develop management strategies prior to the extension of waterlines.	None required.	Authorizing legislation may be needed.
<b>16. Performance-Based Onsite Sewage Technology Standards</b> Consider moving from “prescriptive” standards to “performance-based” standards to allow for new or innovative onsite sewage technologies.	None required.	Amendment to existing onsite sewage statute and regulations will be needed if Kentucky chooses to adopt performance-based onsite sewage standards.

# ONSITE SEWAGE IN KENTUCKY

## ONSITE SEWAGE IN KENTUCKY: PROJECT OVERVIEW

*More than 30 interviews were conducted to identify onsite sewage issues and policy options.*

In May 1999, the Kentucky Environmental Quality Commission (EQC) embarked on a project to assess onsite sewage issues and needs in Kentucky at the request of James E. Bickford, Secretary of the Natural Resources and Environmental Protection Cabinet.

The Environmental Quality Commission conducted more than 30 interviews of state and local health and environmental officials, trade and public interest groups, and national experts to identify onsite sewage issues and policy options (**Appendix A**). A survey to solicit input regarding onsite sewage issues was also distributed to county health departments and 25 responses were received.

*The EQC Onsite Sewage Roundtable provided invaluable guidance in reviewing policy options and developing recommendations.*

On September 23, EQC convened a roundtable discussion of 37 individuals to review onsite sewage policy options. Participants included local health department inspectors and administrators, state environmental officials, local government representatives, trade associations, and public interest groups (**Box 1**). The EQC Onsite Sewage Roundtable provided invaluable guidance in reviewing policy options and developing the final set of recommendations.

### Box 1 - EQC Roundtable on Onsite Sewage Issues and Options Participants<sup>1</sup>

Heath Preston for U.S. Rep. Harold Rogers	Nancy Yelton, Ky. Assn. of Counties	Thomas C. Barnes, Director, Ky. Division of Plumbing
James E. Bickford, Secretary, Ky. Natural Resources and Env. Protection Cabinet	Jack Wilson, Director, Ky. Div. of Water	John Mori, Clement Solomon, Graham Knowles, Nat'l Small Flows Clearinghouse
Aloma Dew, Chair, Environmental Quality Commission	Bob Ware, Asst. Director; Bill Gatewood, Br. Mgr., Facilities Const. Br.; Ky. Div. of Water	Kenny Cole, Estill Co. Health Dept.
Robert Riddle, Environmental Quality Commission	Debbie Acker, Administrator, Woodford Co. Health Dept.	Larry Halcomb, Boyle Co. Health Dept.
Jeff Speaks, Ex. Director, PRIDE	Dudley Conner, Ex. Director, Ky. Health Department Association	Ken Spach, Jessamine Co. Health Dept.
Don Harker, Ex. Director, MACED	Roger Rectenwald, Ex. Director, Big Sandy ADD	Bill Patton, Whitley Co. Health Dept.
Ken Zoeller, President, Ky. Onsite Wastewater Association	Don Hassell, Asst. Director, Bluegrass ADD	Thad Vann, Ex. Director, and Sam Lee, President, Ky. Manufactured Housing Inst.
Sharon Stumbo, Deputy Commissioner, Department for Public Health	Hank Hancock, Ex. Director, Ky. Assn. of Plumbing, Heating & Cooling Contractors	Russ Thomason, U.S.D.A. Rural Dev. Office
Mark Hooks, Assistant Director, Ky. Division of Environmental Health	Tom FitzGerald, Ky. Resources Council	Ken Slone, U.S.D.A. Rural Dev. Office
Dave Nichols, Mgr., Environmental Mgmt. Br., Ky. Division of Environmental Health	Jim Claycomb, Ky. Dept. for Local Gov't	Bob Rasmusson, Madison Co. Solid Waste Management Coordinator
Garland VanZant, President, Ky. Rural Water Assn.	Marilyn Eaton, Ky. Infrastructure Authority	Sarah Lynn Cunningham, Louisville/Jefferson Metropolitan Sewer District
	Marshall Slagle, Northern Ky. Area Planning Commission	Dan Carey, Ky. Water Resources Development Commission

## ONSITE SEWAGE IN KENTUCKY: BACKGROUND

According to the 1990 U.S. Census, an estimated 600,000 housing units in Kentucky rely on septic tanks and other onsite systems for wastewater treatment. That's about 40% of the state's households. But a closer look reveals that in 36 counties less than 25% of the housing units are connected to public sewers (**Box 2**). And those counties are not just in Eastern Kentucky, they are scattered across the state.

Another 57,000 homes rely on some other means to dispose of their sewage. Most of these homes are without plumbing. In fact, according to the National Rural Community Assistance Program, Kentucky ranks first in the nation in the number of rural homes without adequate plumbing.<sup>2</sup>

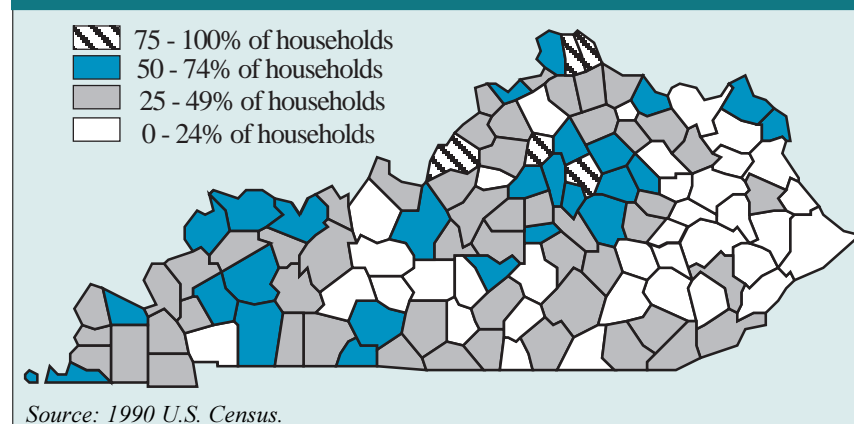
While it is not known how many onsite sewage systems are failing or how many illegal straight pipes there are in Kentucky, it is considered a widespread problem across the state. During 1997, more than 5,000 complaints were received by public health officials regarding onsite sewage. The Kentucky Division of Water reports that onsite sewage is the 4th leading source of water pollution in monitored waterways.<sup>3</sup>

The Cabinet for Health Services (CHS) is the lead state agency for administering the Onsite Sewage Program. State law establishes specific authority relative to onsite sewage disposal systems that have a subsurface discharge.<sup>4</sup> The law provides for the certification of inspectors and installers of onsite sewage systems, adoption of regulations to carry out this authority, and other related matters.

CHS has a staff of 3 and a supervisor to oversee the Onsite Sewage Program. The budget is funded by a \$30 permit fee which finances about 95% of the state budget. In fiscal year 1998-99, 22,031 onsite sewage permits were issued in Kentucky. The state collected \$660,930 in permit fees to fund the CHS Onsite Sewage Program.

State law establishes joint authority between CHS and the local boards of health to investigate nuisances, sources of filth, and causes of sick-

### Box 2 - Kentucky Housing Units Connected to Public Sewer



### Ky. Onsite Sewage Facts

- 40% of the state's housing units depend upon onsite sewage systems to treat wastewater. (U.S. Census)
- Kentucky ranks first in the nation in the number of rural homes without adequate plumbing. (Rural Community Assistance Program)
- During the past year onsite sewage permits increased 27%. More than 22,000 onsite sewage permits were issued in fiscal year 1998-99. (Ky. Dept. for Health Services)
- The state received 5,000 public complaints regarding onsite sewage in 1997. (Ky. Dept. for Health Services)
- Onsite sewage is the 4th leading source of water pollution in monitored waterways. (Ky. Division of Water)
- Nearly half of the private drinking water wells sampled by CHS tested positive for coliform bacteria, a indication that the well may be contaminated with disease carrying pathogens. (Ky. Dept. for Health Services)
- 37% of new home constructions in Kentucky are using onsite systems for wastewater treatment. (Ky. Onsite Wastewater Association)
- 41% of all new home construction in Kentucky are manufactured homes. (Ky. Manufactured Housing Institute)
- The 5th Kentucky Congressional District has the 7th highest number of onsite sewage systems in the nation. (National Small Flows Clearinghouse)

***Local health departments serve as agents of CHS and employ inspectors to implement onsite sewage rules within their respective counties.***

***Some local health departments report spending 75% or more of their budget and time implementing the Onsite Sewage Program.***

ness.<sup>5</sup> Local health departments serve as agents of CHS and employ inspectors to implement onsite sewage rules within their respective counties. There are about 270 active local health department onsite inspectors certified in Kentucky.

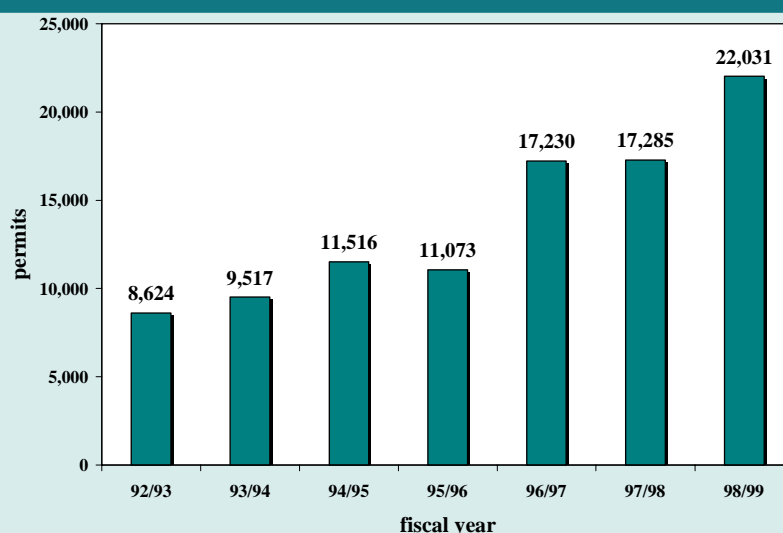
State law requires each local board of health to set fees sufficient to cover the full cost of administering the Onsite Sewage Program.<sup>6</sup> However, in most cases fees do not cover the cost of the program and are often supplemented by local tax revenues. Local health department onsite inspection/permit fees vary by county and range from \$75 to \$220 and cover anywhere from 17% to 100% of local program costs.<sup>7</sup> Local health department onsite sewage budgets vary from \$30,000 to \$180,000 a year. Some local health departments report spending 75% or more of their budget and time implementing the Onsite Sewage Program. EQC estimates that a total of \$6 million is spent annually by local health departments to enforce onsite sewage rules.

The Natural Resources and Environmental Protection Cabinet (NREPC) Division of Water is responsible for permitting package wastewater plants which serve individual or multiple residences. The Division of Water also issues discharge permits for municipal and industrial wastewater facilities. The Division also approves the design and construction of municipal plants, inspects and samples sewage treatment facilities, and conducts complaint investigations.<sup>8</sup> The Division of Water also responds to complaints regarding straight pipe and onsite sewage system discharges to surface waters.

The Ky. Division of Water has other programs in place related to onsite sewage including a Generic Groundwater Protection Plan for onsite systems. The plan is educational in nature and details how a system works, proper operation and maintenance, and a record keeping section. The Division also recently hired an Onsite Wastewater Coordinator to coordinate its onsite programs and activities.

***In fiscal year 1998-99, 22,031 onsite sewage permits were issued in Kentucky, an increase of 27% from the previous year.***

**Box 3 - Onsite Sewage Permits Issued in Kentucky**



*Note: Based on state fiscal year. Source: Ky. Cabinet for Health Services*

## ONSITE SEWAGE IN KENTUCKY: PROJECT FINDINGS

Interviews conducted as part of the EQC Onsite Sewage Project generated a mix of issues and policy needs. The Commission summarized and organized these issues into 6 categories.

### I. PROGRAM ISSUES

**Organization.** There were mixed opinions regarding how the Onsite Sewage Program should be organized at the state level. Many of those interviewed agree that it would be beneficial to consolidate all wastewater programs under one cabinet making more efficient use of resources and expertise. Some believe the Onsite Sewage Program belongs in the Natural Resources and Environmental Protection Cabinet since all other water related programs are housed within NREPC. However, the majority of those interviewed indicated that time and energy would be better spent on improving the CHS Onsite Sewage Program rather than reorganizing the program.

*The majority of those interviewed indicated that the onsite program should remain at Cabinet for Health Services but steps should be taken to provide additional resources and staff to strengthen the program.*

Most interviewed agree that it is important to implement the Onsite Sewage Program at the local level and that health departments are the most appropriate place to do this. They note that local health departments have built expertise and knowledge about onsite sewage systems. However, many of those interviewed agree that more staff and resources are needed at the local level to better implement and enforce onsite sewage rules. County health department officials note that they must rely on permit fees and local tax revenues to fund onsite sewage programs. Some suggested that the state should provide matching funds to local health departments to supplement onsite sewage budgets.

**Oversight.** Many of those interviewed believe that onsite sewage rules are not being consistently implemented and enforced among local health departments. The Cabinet for Health Services is charged with evaluating local onsite sewage programs. EQC was told that the CHS does not have the resources or staff to conduct local health department program evaluations. Currently, the CHS Onsite Sewage Program has a staff of 3 to provide training, respond to complaints, and provide technical assistance to local health departments. CHS has identified some counties where problems with the onsite sewage programs exist primarily in response to a high number of public complaints.

*Many of those interviewed believe that onsite sewage rules are not being consistently implemented and enforced among local health departments.*

**Coordination.** NREPC and CHS entered into a protocol in 1990 to clarify state roles and responsibilities among the two agencies regarding onsite sewage. The protocol clarifies the lead agency that will address various situations including complaints, inspections, compliance reviews, and enforcement. CHS also created an advisory committee through an administrative order in December 1998 to review onsite sewage disposal regulations. The 15-member committee is composed of various state, local, and federal agencies and private interests and is currently working on updating state onsite sewage disposal regulations. This is the first update to these regulations since 1986. The committee is currently reviewing local health department inspector certification requirements.

*More formal mechanisms are needed to promote greater cooperation among CHS and NREPC to carry-out onsite sewage program.*

Many of those interviewed believe that a more comprehensive assessment is needed to identify jurisdictional overlaps and gaps among state regulatory onsite sewage programs. Many indicated that more formal mechanisms among CHS and NREPC are also needed to promote and implement cooperative management and enforcement strategies to address onsite sewage issues.

*Most onsite sewage enforcement cases are handled at the local level by the county attorney and heard in local courts. According to local health department inspectors, these cases often receive low priority and little action.*

**Enforcement.** State law establishes joint authority between CHS and the local boards of health to investigate nuisances, sources of filth, and causes of sickness. Penalties are also set by state law and are generally \$10 - \$100 per day per incident. During 1997, state and local officials received more than 5,000 onsite sewage complaints.

Most onsite sewage enforcement cases are handled at the local level by the county attorney and heard in local courts. According to local health department inspectors, these cases often receive low priority and little action.

NREPC responds to onsite sewage discharges to surface waters on a case-by-case basis. It can issue fines of up to \$25,000 a day. Several of those interviewed believed that NREPC should take a greater role in enforcing onsite sewage rules (particularly regarding straight pipes) since it has the direct authority to issue citations and fine violators.

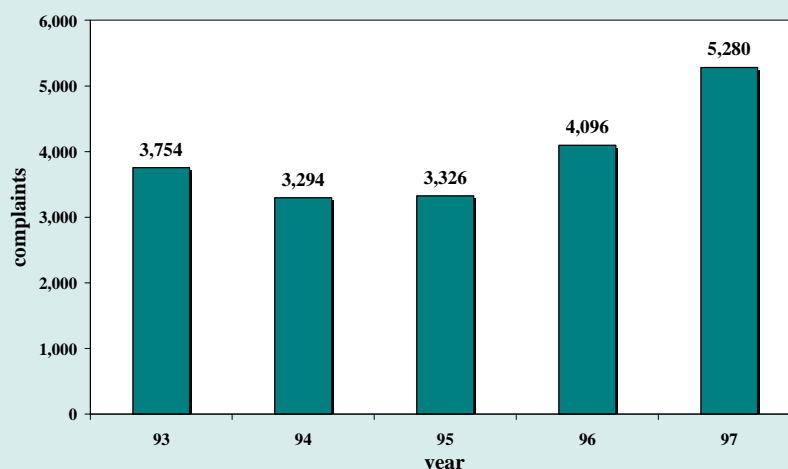
Most of those interviewed agree that the enforcement of onsite sewage rules needs to be strengthened and improved. However, it is difficult to determine where enforcement is breaking down since no extensive monitoring of local health department onsite sewage programs is taking place. Many of those interviewed also agree that the enforcement of onsite sewage laws and regulations must be coupled with a program of technical and financial assistance to homeowners.

Some local health department inspectors indicated that a state law has impeded their ability to enforce onsite sewage rules. The law, KRS 211.350 section 7, specifies that no inspection or enforcement action can be authorized against an onsite system installed on a “farmstead” (farms

*Most agree that the enforcement of onsite sewage rules needs to be strengthened and improved.*

*During 1997 state and local officials received more than 5,000 onsite sewage complaints.*

**Box 4 - Onsite Sewage Complaints**



Source: Ky. Department for Health Services

greater than 10 acres) prior to July 15, 1992 unless a written, verified complaint is received. Local health department inspectors report that this law prevents them from taking action on straight pipes or failing systems since neighbors are often reluctant to file written complaints. They also report that it is difficult to determine if a farm with a failing system or straight pipe qualifies under the farmstead exemption so some inspectors have been advised not to respond to an onsite sewage problem unless a written complaint is received.

## II. FUNDING ONSITE SEWAGE SYSTEMS

Most of the individuals interviewed during the EQC Onsite Sewage Project agree that onsite systems will remain a primary wastewater treatment technology for the foreseeable future given that resources are not available to sewer many communities.

There is no statewide funding program for onsite sewage or small alternative systems in Kentucky. However, a \$6.2 million low-interest PRIDE Revolving Loan Program for onsite sewage systems was established in 1998 as part of a \$26 million U.S. Department of Commerce NOAA grant.

Forty counties in Eastern Kentucky have access to the PRIDE loan program which to date has approved 1,500 projects at a cost of \$3 million. Loans range from \$1,500 to \$5,000 and can also be used to cover costs associated with connecting to a sewer line (about \$800).

There is also a PRIDE Grant Program. The \$25 million grant program is restricted to the 27-county region of the 5th Congressional District. The program provides a 75%/25% federal/local cost-share match to local entities to fund innovative onsite and sewer technologies. For example, the program was used to fund a constructed wetland in Breathitt County to treat the wastewater produced by 60 homes. To date, \$9 million from this program has been used to fund a number of projects.

Many of those interviewed expressed the need to expand the PRIDE Revolving Loan Program for onsite sewage systems statewide. The challenge is to find the resources to fund a statewide program. Several states have developed onsite sewage loan and grant programs using various funding sources (**Box 5 and Appendix B**). Several states have earmarked a portion of their state revolving wastewater fund (SRF) to establish an onsite loan program. Officials from states with an onsite sewage loan program, however, caution that for a loan program to be effective it must be coupled with strong enforcement of onsite sewage rules in order to encourage compliance and participation.

## III. TECHNOLOGY AND SYSTEM OPERATION & MAINTENANCE

**Technology.** Many experts EQC spoke with agree that onsite technologies, when properly selected, installed and maintained, can do an adequate job treating wastewater.

State law addresses the approval of onsite subsurface disposal systems. Regulations address the design and construction of onsite systems and

*Many of those interviewed expressed the need to expand the PRIDE Revolving Loan Program for onsite sewage systems statewide. The challenge is to find the resources to fund a statewide program.*

### Box 5 - EQC Selective Survey of State Onsite Sewage Loan/Grant Programs

	SRF	General Funds	CDBG	User Fee	Fines	USDA	EPA Hardship Grants	Bonds	EPA 319 Grants
Connecticut		x							
Kansas		x		x					x
Maine	x		x			x		x	
Massachusetts	x							x	
N. Carolina	x	x	x			x			
Ohio	x		x			x	x		
Oklahoma					x				
Pennsylvania	x		x						
Rhode Island	x								x
Virginia	x								
Wisconsin		x							

SRF- State Wastewater Revolving Loan Funds. General fund - state revenue appropriations. CDBG - Community Development Block Grants. User fees - fees on water use, etc. Fines- dedication of environmental fines. USDA - federal rural development service (Section 504&502) loan and grant program. EPA hardship grants - U.S. EPA hardship grants to improve wastewater treatment in poor or rural communities. Bonds -state issued bonds. EPA 319 program - U.S. EPA Nonpoint Source grant program. Source: EQC telephone survey, July/August 1999.

*Proliferation of residential package plants, inconsistent and/or poor design of onsite sewage systems, and a lack of expertise and knowledge of alternative, low-cost, and multifamily systems were among concerns expressed by those interviewed.*

the components and materials used in their construction. State regulations allow the following onsite technologies: aerobic treatment units, alternative solid absorption designs, gravelless/chamber systems, mounds, wetlands, and peat systems. Experimental systems are allowed through the use of exceptions/variances. CHS and local health departments issue permits for these types of onsite sewage systems.

The Division of Water issues permits for residential wastewater package plants. These systems serve a single-family home in an area not served by a city or other wastewater system. Residential package plant permits are primarily issued in areas where a septic system cannot be approved by the local health department because of site suitability problems. A permit is good for 5 years and costs \$450. Regulations require applicants pass a written examination and have at least 1-year of experience in operating a system. The Division of Water reports an increase in the number of permitted residential package plants for single dwellings (**Box 6**). These systems have doubled in the past few years, primarily in response to Senate Bill 18 which was passed by the 1998 General Assembly. Senate Bill 18 requires an approved onsite sewage system prior to the hookup of electricity for any new residence.

Concerns expressed by those interviewed include the proliferation of residential package plants, inconsistent and/or poor design of onsite sewage systems, and a lack of expertise and knowledge of alternative, low-cost, and multifamily systems. In addition, Kentucky has conducted no real-world testing or data collection on the performance of onsite systems so we have no knowledge about how effective these systems are in actually treating wastewater.

**Operation and Maintenance.** In Kentucky, onsite sewage management systems are currently required for cluster systems and experimental individual systems to ensure proper operation and maintenance. Otherwise onsite management systems or maintenance districts are not recognized or required by state law or regulation.

Failing onsite sewage systems were among the most commonly listed issues identified by those parties interviewed by EQC. Many surveyed noted that the poor operation and maintenance of onsite systems by owners are contributing to system failures. Operation and maintenance was also cited as a problem at smaller cluster systems due to turnover of operators and lack of resources to maintain and operate these systems.

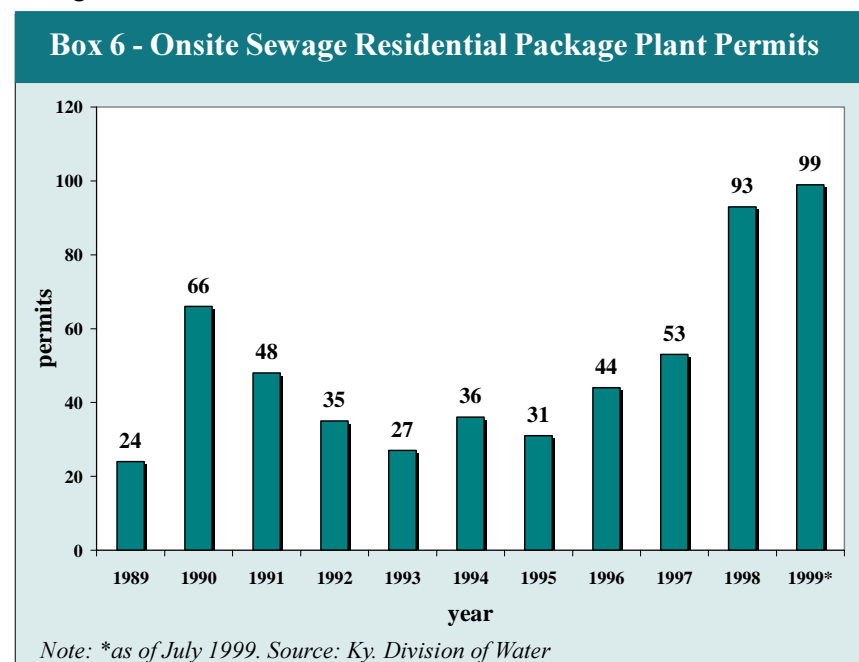
Residential package plants may also require further attention to ensure proper maintenance and operation. For example, state regulations require residential package plant operators to sample yearly and submit reports to the Division of Water. However, according to the Division of Water, less than 10% of the permitted residential package systems are complying with these requirements.

Many of those interviewed agree that more must be done to promote adequate operation of maintenance if Kentucky is to prevent pollution from onsite sewage systems. The Big Sandy ADD is promoting an operation and maintenance program for senior citizens to have their septic systems maintained, repaired, or replaced for a monthly fee of \$12 by the water and sanitation district.

*Many of those interviewed agree that more must be done to promote adequate operation of maintenance of onsite sewage systems if Kentucky is to prevent pollution and protect public health.*

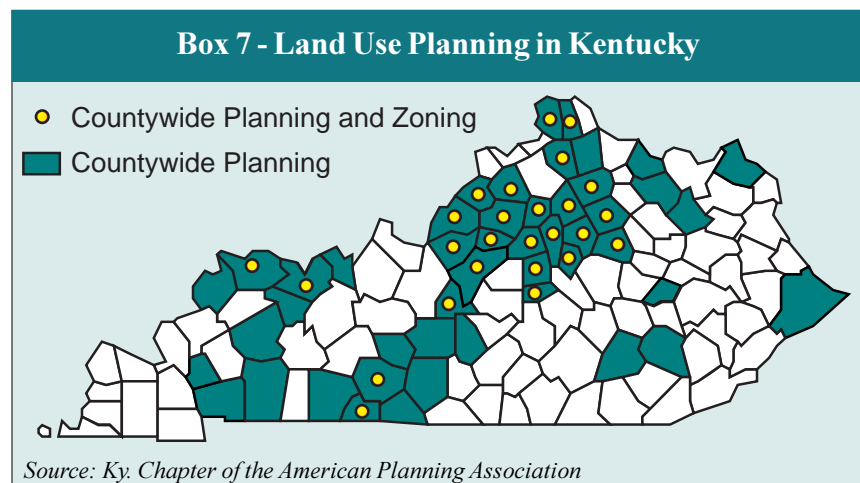
#### IV. LAND USE AND SITE SUITABILITY

Currently, 48 Kentucky counties have countywide planning, 26 of which also have zoning (**Box 7**). That leaves many Kentucky communities without the proper tools to properly address land development/site suitability issues associated with the treatment and disposal of onsite sewage.



*The Division of Water reports an increase in the number of permitted residential package plants for single dwellings. These systems have more than doubled in the past year, primarily in response to Senate Bill 18.*

*Currently, 48 counties have countywide planning, 26 of which also have zoning. That leaves many Kentucky communities without the proper tools to properly address land development/site suitability issues associated with the treatment and disposal of sewage.*



In 1998, the legislature passed Senate Bill 18 in an attempt to promote proper onsite sewage disposal. The bill requires an approved onsite sewage system prior to the hookup of electricity for any new residence. Many local health departments EQC contacted felt that Senate Bill 18 has made a big difference in stopping the proliferation of straight pipes, particularly in areas without planning and zoning. CHS reports a 27% increase in onsite sewage permits in the past year, likely in response to Senate Bill 18.

Many agree that more must be done to promote proper land use planning in Kentucky. Some supported stronger evaluation of building sites prior to their development to ensure the sites are suitable for onsite sewage systems. While others suggested that 5-acre minimum lot sizes be specified in onsite sewage regulations. CHS program staff also expressed the need to consider adopting “performance-based” standards to allow for innovative onsite sewage technologies to address site suitability problems. And most of those interviewed noted that Senate Bill 18 does not address existing straight pipes or failing septic systems. Some advocated a state law to require disclosure or certification of a functioning onsite system or sewer hookup prior to the transfer of property.

County officials that were interviewed also mentioned problems of annexation and the need to overcome county/city geographical and political barriers to better plan and manage wastewater services. Some city officials supported the need to encourage “Smart Growth” through incentives. Some county officials also recorded frustration with their inability to compel sewer tie-ons.

## V. NEEDS ASSESSMENT/PLANNING

Many of those interviewed strongly endorse the need for better wastewater infrastructure planning in Kentucky. And most agree that drinking water and wastewater infrastructure development must be better coordinated.

Many also agree that Kentucky needs to do a better job assessing the impacts of onsite sewage on health and the environment. EQC estimates that the average volume of onsite sewage disposed of annually is

*Many of those interviewed strongly endorse the need for better wastewater infrastructure planning in Kentucky.*

32 billion gallons or 90 million gallons per day. This is based on an estimated average daily flow of 150 gallons of water use per onsite system. The impacts of onsite sewage on public health and the environment are largely unknown in Kentucky. Many of those interviewed called for an inventory of onsite sewage systems in Kentucky with an emphasis on identifying failing systems and straight pipes. A PRIDE project in Eastern Kentucky has provided counties with funding to identify and map problem onsite systems. A million dollar federal grant was secured to hire staff at Area Development Districts to map problem areas. Another \$300,000 federal grant was awarded to purchase equipment to support the GIS/GPS mapping project. Several of those interviewed supported the need to expand this inventory statewide.

It may also be helpful to promote better program planning at the state level. The Natural Resources and Environmental Protection Cabinet, Division of Water, is required to prepare a strategic plan to continually assess its programs and identify needs. Such a planning requirement may prove to be a beneficial tool for improving the performance of the CHS Onsite Sewage Program.

## **VI. EDUCATION AND TRAINING**

**Education.** Many interviewed recognized that public attitudes must be changed if we are to tackle the problem of improper sewage disposal. One county health department official noted that “all agencies involved in onsite sewage have done a horrible job in the area of public relations and the importance of proper wastewater disposal.”

Changing behaviors will take a mix of education, enforcement, and financial assistance. All EQC Roundtable participants agree that Kentucky must launch an aggressive comprehensive education effort to promote a greater understanding of onsite sewage disposal in Kentucky.

**Training.** Training is essential component of the state’s Onsite Sewage Program. CHS is responsible for training and certifying inspectors and installers. Currently 270 local health department inspectors and 3,037 installers are certified in Kentucky.

Many local health department inspectors EQC spoke to expressed a need for more specific continuing education especially regarding onsite sewage system design, alternative systems, and enforcement practices.

Some indicated that the CHS onsite training program should be more centralized and coordinated. The Kentucky Onsite Wastewater Association recently secured a \$150,000 federal grant to develop a training center for installers at the Kentucky Tech Training Facility in Anderson County. This facility could also serve as a centralized site for the CHS onsite sewage training program.

The need for a training and a certification program for septage pumpers was also expressed. Currently there is no specific training or certification requirement for pumpers. It was also suggested that the state create a training and certification program for onsite operation and maintenance providers should Kentucky pursue the creation of management districts for onsite sewage systems.

*Onsite Sewage in Kentucky*

*All EQC Roundtable participants agree that Kentucky must launch an aggressive education effort to promote a greater understanding of proper onsite sewage disposal in Kentucky.*

*Many local health department inspectors expressed a need for more specific continuing education especially regarding onsite sewage system design, alternative systems, and enforcement practices.*

## ONSITE SEWAGE IN KENTUCKY: RECOMMENDATIONS

The EQC has developed 7 key recommendations based on its findings and the strong support expressed by the Onsite Sewage Roundtable.<sup>9</sup> Nine additional recommendations are also offered where there was general agreement among roundtable participants.

### RECOMMENDATION 1 - RESOURCES AND FUNDING

*Roundtable participants strongly endorse the need to increase CHS Onsite Sewage Program funding and staff.*

The EQC Onsite Sewage Roundtable participants strongly support retaining the Onsite Sewage Program within the Cabinet for Health Services but it should be strengthened. The Onsite Sewage Program is woefully underfunded and staffed. A review of various state onsite sewage programs across the country reveals Kentucky's program falls near the bottom in terms of resources and staff. For example, Kentucky has a central staff of 4 and a budget of \$600,000, 95% of which is financed by a \$30 permit fee. North Carolina has a central staff of 17 funded by a state general fund appropriation of \$1.25 million. Virginia has a central staff of 11 with a \$75 dollar permit fee and a budget of \$1 million. While Tennessee's program has a central staff of 26 and a budget of \$7.5 million.

Roundtable participants strongly endorse the need to increase CHS Onsite Sewage Program funding and staff. Funding options include:

- Increase the state onsite permit fee (has been \$30 since 1982).
- General fund appropriations.

The EQC roundtable supported the need for additional CHS Onsite Sewage Program staff to include soil scientists, engineers, hydrogeologists, enforcement coordinators, and education/training coordinators. EQC also recommends CHS pursue other sources of revenue such as U.S. EPA Section 319 Nonpoint Source grants to supplement its onsite program budget (see **Recommendation 6**).

### RECOMMENDATION 2 - ONSITE SEWAGE STATE ACTION PLAN

*The Onsite Sewage Program is in need of review and a fresh approach to addressing onsite sewage issues and needs in the state.*

Since 1982, the Onsite Sewage Program in the Cabinet for Health Services has struggled to meet its mandate to protect public health. With limited funding and staff the program has been forced to focus on a few basics — training and certifying inspectors and installers and providing limited technical assistance to local health departments.

The Onsite Sewage Program is in need of review and a fresh approach to addressing onsite sewage issues and needs in the state. Kentucky must create partnerships that promote collaborative and innovative solutions to address onsite sewage problems. The EQC roundtable supported the need to develop a statewide Onsite Sewage Action Plan designed to provide leadership, identify opportunities, promote coordination and collaboration, and guide program priorities.

The EQC calls upon Natural Resources and Environmental Protection Cabinet and the Cabinet for Health Services to jointly prepare a Plan of Action with the goal of developing and implementing management and

enforcement strategies to address onsite issues in Kentucky. Among some of the specific recommendations of EQC and the Roundtable that should be considered in the Action Plan are:

- Undertake a comprehensive evaluation of regulatory overlaps and gaps of onsite sewage programs.
- Target straight pipe/failing onsite sewage areas through cooperative multi-agency investigation/assistance/enforcement ventures.
- Develop state/community partnerships to implement innovative onsite technology and demonstration projects.
- Facilitate research to assess effectiveness of onsite systems.
- Promote consistent design criteria for onsite sewage systems.
- Strengthen and enforce monitoring requirements for onsite systems.
- Assess the effectiveness of local health department onsite sewage programs and develop strategies to promote compliance.
- Develop incentives and other measures to promote proper operation and maintenance of onsite sewage systems.
- Develop a state education/outreach onsite sewage initiative.
- Strengthen training of inspectors, installers, and pumpers.

### **RECOMMENDATION 3 - COUNTY ONSITE SEWAGE INVENTORY AND MANAGEMENT STRATEGY**

If Kentucky is to begin to address the problem of straight pipe discharges and failing septic systems, it must first fully assess the problem. This was a resounding recommendation of the EQC Roundtable.

A county-by-county inventory of straight pipes and failing septic systems should be conducted and management strategies developed to target problem areas. Such an inventory is underway in the 40 PRIDE counties which can serve as a model for the remainder of the state. This would entail funding Area Development Districts to work with local health departments to conduct joint inventories and map sites. EQC estimates inventory funding needs at \$3 million based on the 40-county PRIDE program. Funding options to support county inventories include state general funds and/or use of the State Revolving Wastewater Fund (SRF).

### **RECOMMENDATION 4 - INFRASTRUCTURE PLANNING**

Kentucky, like many rural states, faces a significant challenge in providing its citizens with basic services such as sewage treatment. Extending wastewater collection and treatment services to all Kentuckians is not technically or economically feasible. However, it is critical that Kentucky develop the capacity to better assess and project wastewater treatment needs in order to prioritize and extend these services to areas in the most efficient and effective manner possible. Not only is this an important tool to reduce the impacts of sewage on public health and the environment, it is a critical component in growing the economy.

EQC and the Onsite Sewage Roundtable endorse the need to promote comprehensive wastewater planning. The Roundtable also recognized that wastewater and drinking water infrastructure development must be better coordinated since the extension of waterlines will result in a

*The EQC calls upon Natural Resources and Environmental Protection Agency and the Cabinet for Health Services to jointly develop an Action Plan to improve onsite sewage programs in Kentucky.*

*A county-by-county inventory of straight pipes and failing septic systems should be conducted and management strategies developed to target problem areas.*

*The EQC roundtable endorses the need to promote countywide wastewater planning to better assess needs and promote regional solutions.*

greater generation of wastewater.

EQC recommends that state economic development and/or infrastructure funds be allocated to help counties prepare countywide comprehensive drinking water/wastewater infrastructure 20-year plans to better define current and projected needs and consolidate/regionalize services where appropriate. To accomplish this the Commission recommends:

- KRS 151.114 (water supply planning statute) be amended to require the development of countywide comprehensive drinking water/wastewater infrastructure plans.
- The state allocate \$6 million over the next 5 years to fund the preparation of county infrastructure plans.
- The Ky. Division of Water work with the Water Resource Development Commission to administer the program.
- The plans provide for county and regional management strategies to promote the efficient delivery of services.
- In the absence of a county developing a plan within a required timeframe, the Ky. Division of Water prepare such a plan.
- The plans integrate and build upon existing plans (201 Facility Plans).
- The plans be used by the state as the basis for setting funding priorities for water and sewer projects.

## **RECOMMENDATION 5 - ONSITE SEWAGE SYSTEM LOAN AND GRANT FUND**

With almost half of the state's housing units dependent upon onsite sewage systems for wastewater treatment, the financial need to fund and maintain these systems is great. The cost of an onsite sewage system ranges from \$2,500 to \$8,000 depending on the building site. Kentucky does not have a statewide program in place to assist homeowners finance onsite sewage systems. As such, Kentuckians often rely on conventional high interest loans to fund a system.

Assisting Kentuckians in need of an alternative source of funds to install or repair onsite systems is the goal of the PRIDE Onsite Loan and Hardship Grant Program. The EQC Onsite Sewage Roundtable supports the creation of a similar statewide program to assist Kentuckians improve onsite sewage treatment and prevent pollution.

EQC recommends the Kentucky Infrastructure Authority be directed to develop a state Onsite Sewage Loan and Grant Fund. KIA, with the assistance of other state and federal agencies involved in grant and loan programs and lending institutions, would:

- Set up a funding mechanism using SRF and/or other sources to create a loan and hardship grant program **(see Appendix B)**.
- Define the provisions and administration of the program.
- Provide provisions to require operation and maintenance of systems as a condition of the loan or grant.
- Provide provisions that countywide inventories of straight pipes and failing onsite systems be conducted and management strategies be prepared prior to county access to onsite revolving loan or grant funds.

*The EQC Onsite Sewage Roundtable supports the creation of a statewide loan and hardship grant program to assist Kentuckians improve onsite sewage treatment and prevent pollution.*

## RECOMMENDATION 6 - PUBLIC EDUCATION CAMPAIGN

If Kentucky is to minimize the environmental impacts of sewage in waterways and reduce the health risks posed by the exposure of disease-carrying pathogens, it must launch an aggressive campaign to educate the public about proper sewage disposal. The EQC Roundtable strongly endorses the need to strengthen education and outreach programs to homeowners as well as lending institutions, realtors, homebuilders, and manufactured housing dealers regarding proper onsite sewage disposal.

EQC recommends that NREPC target \$400,000 of its U.S. EPA Section 319 Nonpoint Source Grants to fund an Onsite Sewage Education Campaign in Kentucky. The Commission recommends that a task group chaired by the Cabinet for Health Services be assembled to develop a grant proposal with the goal of funding a CHS onsite education coordinator to develop educational materials and build awareness of proper onsite sewage treatment and disposal.

*EQC recommends that NREPC target a portion of its U.S. EPA Section 319 Grants to fund an onsite sewage education campaign in Kentucky.*

## RECOMMENDATION 7 - DISCLOSURE OF ONSITE SEWAGE DISPOSAL

The 1998 General Assembly passed a far-reaching law, Senate Bill 18, that has been effective tool in halting the proliferation of straight pipes in Kentucky. The law requires proper sewage treatment prior to the hookup of electricity for any new residence. Overall, the law has been effective and has resulted in a 27% statewide increase in onsite sewage permits since the it took effect.

However, the problem of existing straight pipe discharges and failing onsite sewage systems remains a concern across Kentucky. An option to identify and address existing straight pipes and failing systems can be accomplished through the passage of a state law to require the disclosure of how sewage generated is managed prior to the transfer of property. There was general support for an onsite disclosure law by roundtable participants although some concern was expressed regarding additional workloads it may place on local health department inspectors.

*An option to identify and address existing straight pipes and failing systems can be accomplished through the passage of a state law to require the disclosure of how sewage generated is managed prior to the transfer of property.*

Minnesota passed a Sewage Disclosure law in 1998 which may serve as a model for Kentucky (**Appendix C**). Provisions of the Minnesota Septic System Disclosure Law are:

- Requires before signing an agreement to sell or transfer real property, the seller/transferor must disclose in writing to the buyer or transferee information on how sewage generated at the property is managed.
- The disclosure must state that either the sewage goes to a permitted wastewater facility or to an onsite septic treatment system.
- If it is an onsite system, the following much be provided: legal description of the property, county, map location of the system, and any information about abandoned onsite systems on the property.
- If there is a failure to disclose the existence and status of an individual sewage treatment system at the time of sale, the seller/transferor is liable for costs relating the bringing the system into compliance with state rules and attorney's fees.

## **ADDITIONAL RECOMMENDATIONS**

A majority of the Onsite Sewage Roundtable participants and EQC endorse the following 9 additional recommendations.

### **8. Farmstead Exemption Revision**

EQC recommends that KRS 211.350 be amended to eliminate the “written complaint” provision in the farmstead exemption. Elimination of this provision will allow local health departments to respond to onsite sewage complaints in a more efficient and effective manner.

### **9. Local Health Department Administrative Enforcement Tools**

Enforcement of onsite rules is critical if Kentucky is to make headway in protecting public health and the environment. EQC recommends that the enforcement authority of local health departments be strengthened to include administrative tools such as notices of violations and penalties.

### **10. Require Sewer Tie-ons**

County officials have expressed frustration with their inability to compel sewer tie-ons. EQC recommends that either a state law be passed or county ordinances be promoted to compel sewer tie-ons (**Appendix D**).

### **11. Onsite Sewage Training Center**

Knowledgeable and trained inspectors and installers are critical to supporting an effective Onsite Sewage Program in Kentucky. EQC recommends CHS establish an onsite sewage training coordinator and centralize its training courses at one statewide facility to improve delivery of services.

### **12. Monitoring Onsite Systems**

Kentucky has focused little attention on promoting proper operation and maintenance of onsite sewage systems. EQC recommends that CHS and NREPC strengthen and enforce its monitoring requirements for high maintenance onsite sewage systems.

### **13. Onsite Sewage Management Districts**

Management districts are a tool to promote proper operation and maintenance of onsite systems. EQC recommends Kentucky explore the potential of this concept by setting up a demonstration project to test the feasibility of an Operation and Management District for onsite sewage systems.

### **14. “Smart Growth” Plans**

Geographical and political boundaries continue to discourage regional solutions to Kentucky’s wastewater problems. EQC recommends that local governments be provided incentives for “Smart Growth” to overcome annexation and other barriers inhibiting regionalization of wastewater services.

### **15. Wastewater Strategies Prior to Extension of Waterlines**

The extension of waterlines is a high state priority. However, providing access to public water often results in the greater generation of wastewater. EQC recommends that cities and counties be required to assess sewage treatment needs and develop management strategies in areas where waterlines will be extended prior to state approval and/or funding.

### **16. Performance-Based Onsite Sewage Technology Standards**

In some cases, alternative onsite sewage systems may have the potential to solve site suitability problems. Some states are moving from “prescriptive” standards to regulations based on “performance” to allow for new or innovative onsite technology. EQC recommends that CHS explore this concept to determine if performance-based technology standards for onsite sewage systems is an appropriate regulatory option for Kentucky.

## ONSITE SEWAGE IN KENTUCKY: CONCLUSIONS

The improper treatment and disposal of sewage remains a significant health and environmental threat in Kentucky. Efforts to address sewage pollution has primarily focused on municipal and industrial sewage treatment plants. However, each year tens of thousands of individual onsite sewage systems are permitted. The extent that onsite sewage systems are contributing to public health and water quality problems are largely unknown but are considered great.

While an Onsite Sewage Program has been in place in Kentucky since the 1980s, it has been poorly funded and has received low priority. However, in recent years, state leaders have begun to recognize the need to promote proper onsite sewage management in Kentucky. The passage of Senate Bill 18 in 1998 has been an effective tool in halting the proliferation of straight pipes in Kentucky. And the PRIDE program in Eastern Kentucky has demonstrated that, with adequate resources and leadership, Kentucky can tackle this tough problem and build healthy and sustainable communities.

The EQC Onsite Sewage Project offers some basic first steps toward more fully addressing onsite sewage problems in Kentucky. Some of these recommendations require funding, some focus on targeting existing resources, while others seek to promote a new spirit of collaboration and cooperation among state agencies. EQC believes these recommendations are the cornerstones of building a strong and comprehensive Onsite Sewage Program in Kentucky and therefore should be considered in whole and not part. The long-term benefits of healthy and sustainable communities will far outweigh the short-term costs associated with enacting these measures.

*The improper treatment and disposal of sewage remains a significant health and environmental threat in Kentucky.*

*The EQC Onsite Sewage Project offers some basic first steps toward more fully addressing onsite sewage problems in Kentucky*

*Some of these recommendations require funding, some focus on targeting existing resources, while others seek to promote a new spirit of collaboration and cooperation among state agencies.*



*... the PRIDE program in Eastern Kentucky has demonstrated that, with adequate resources and leadership, Kentucky can tackle this tough problem and build healthy and sustainable communities.*

## ONSITE SEWAGE IN KENTUCKY: APPENDIX A

### EQC Onsite Sewage Interviews

<b>Name</b>	<b>Organization</b>
Jeff Speaks, Executive Director	PRIDE
Don Harker, Director	MACED
Matt Byers	Ky. Onsite Wastewater Association (KOWA)
Mark Hooks, Assistant Director	Division of Environmental Health and Community Safety, Department for Public Health, Cabinet for Health Services
Dave Nichols, Manager	Environmental Management Branch, Division of Environmental Health and Community Safety, Department for Public Health
Wes Combs	Environmental Management Branch, Division of Environmental Health and Community Safety, Department for Public Health
Bob Logan, Commissioner	Ky. Department for Environmental Protection
Jack Wilson, Director	Ky. Division of Water
Bob Ware, Assistant Director	Ky. Division of Water
Bill Gatewood, Manager	Facilities Construction Branch, Ky. Division of Water
Corrine Wells, Supervisor	Nonpoint Sources Pollution Section, Ky. Division of Water
Pat Keefe	Groundwater Branch, Ky. Division of Water
Debbie Akers, Administrator	Woodford County Health Department
Dudley Conner, Executive Director	Ky. Health Department Association
Carroll Smith, Judge-Executive	Letcher County
Barry Tanning	Council of State Governments
Roger Rectenwald, Executive Director	Big Sandy Area Development District
Don Hassell, Assistant Executive Director	Bluegrass Area Development District
Garland VanZant	Mercer County Health Department and Ky. Rural Water Assn.
Tony White	Mercer County Health Department
Tom Fitzgerald	Ky. Resources Council
Gordon Garner, Executive Director	Louisville/Jefferson Co. MSD
Marilyn Eaton	Ky. Infrastructure Authority
Kent Clark, Judge-Executive	Madison County
Mike Magee, Executive Director	Ky. Association of Counties
Debra Stamper	Ky. Bankers Association

### **EQC Onsite Sewage Interviews . . .continued**

<b>Name</b>	<b>Organization</b>
Marshall Slagle	Northern Kentucky Area Planning Commission
Russ Barnett	KY Institute for the Environment and Sustainable Development, University of Louisville
Gary Larimore	Ky. Rural Water Association
Carl Noe	Madison County Health Department
Joe Ewalt	Ky. League of Cities
Natural Resources and Environmental Protection Advisory Committee	Bluegrass Area Development District
Steve Steinbeck	North Carolina Department of Public Health
Kent Taylor, Director	Tennessee Division for Groundwater Protection
Don Alexander, Director	Virginia Division of Onsite Sewage and Water Services
Lori Freekot	Minnesota Pollution Control Agency

### **EQC Onsite Sewage Issues and Needs Health Department Survey Responses**

Anderson County Health Dept.	Jefferson County Health Dept.
Barren River District Health Dept.	Knott County Health Dept.
Boyle County Health Dept.	Letcher County Health Dept.
Bullitt County Health Dept.	Lexington/Fayette County Health Dept.
Christian County Health Dept.	Logan County Health Dept.
Cumberland Valley District Health Dept.	Montgomery County Health Dept.
Estill County Fiscal Court	Muhlenberg County Health Dept.
Estill County Health Dept.	Rowan County Health Center
FIVCO District Health Dept.	Winchester Municipal Utilities
Garrard County Health Dept.	

## **ONSITE SEWAGE IN KENTUCKY: APPENDIX B**

### **EQC Survey of State and Federal Onsite Sewage Loan/Grant Program Funding Sources**

#### **I. Funding Sources**

##### ***Federal Community Development Block Grants (CDBG)***

Community Development Block Grants provide states with annual direct federal grants that are in turn awarded to smaller governmental entities. Four states fund onsite projects through CDBG usually in combination with SRF funds.

In Kentucky, local governments administer CDBG grants. The grants are typically used to revitalize neighborhoods, home rehabilitation, and for community facilities and services. Several states use CDBG monies to address onsite problems as a part of general housing rehabilitation. CDBG funds can also be used as matching money for other programs.

The federal funding source for CDBG is the U.S. Department of Housing and Urban Development (HUD). Last year, Kentucky received \$30 million in CDBG grant funding; \$11.8 million was spent on water and sewer infrastructure projects. However, little if any of this money was spent on onsite sewage. The primary obstacle to using CDBG funds on onsite sewage is that state agencies do not make direct grants or loans to private individuals. Most states address this requirement by loaning directly to local governmental entities which use the money for community improvement projects addressing failed systems within their area.

According to federal CDBG guidelines, it would be possible to use this funding source to pay for the enforcement of local building codes to reverse housing deterioration. Consequently, it might be a funding source to help pay for the enforcement of septic codes.

##### ***HUD Section 203k Rehab Program***

The Section 203k Program is the U.S. Department of Housing and Urban Development's primary home rehabilitation program for single family dwellings. The program is administered through the Federal Housing Administration (FHA). This program operates through approved FHA lending institutions and is essentially a low-interest mortgage loan program. According to FHA documents, an acceptable use for 203k monies is to install private wells and/or septic systems.

##### ***State Revolving Loan Funds (SRF)***

The U.S. EPA established revolving loan programs in each state to help fund wastewater infrastructure. The U.S. EPA gave states considerable flexibility to tailor their SRF programs to meet their needs. Kentucky has used the SRF program to finance municipal wastewater collection and treatment systems. It has not been used to fund individual onsite systems. The Natural Resources and Environmental Protection Agency and the Ky. Infrastructure Authority (KIA) have the state authority for the use and expenditure of the funds and jointly administer the fund.

Kentucky receives 83% of its SRF money from the federal government, the rest is provided through a state match. State matching funds are provided through the issuance of bonds, which are approved by the state legislature. There is presently \$60 million in uncommitted funds in Kentucky's SRF program. The federal capitalization grant for the SRF program will run through 2003 and will likely be extended past that point.

Eight of the thirteen states surveyed by the Environmental Quality Commission use or are proposing to use SRF money to help fund onsite sewage loan programs. Several states point out that there have been difficulties to using SRF money because of specific state law limitations, administrative/management hurdles, and paperwork requirements.

KIA officials indicate that the SRF is flexible and could be used for an onsite loan program. According to Ky. Division of Water officials, SRF funds can currently be used to fund a group of homes in need of onsite repairs. Division officials also indicate that SRF funds could be used to fund individual onsite systems. Funds, however, would have to pass through counties or banks since federal language does not allow the state to loan SRF money to individuals directly. Several states, such as Ohio and Pennsylvania, provide SRF monies to banks that in turn loan money to individuals for onsite systems.

North Carolina is seeking to use SRF funds to conduct field surveys. KIA officials note that current state "intended use" language does not allow SRF funds to be used to fund inventory/survey work to identify straight pipe/failing septic system problem areas. However, there has been discussion of reworking the SRF legislation to allow for such inventory work.

### ***USDA Rural Development Service (Section 504 & 502)***

Section 504 loans are for the repair of low-income and rural homes whose owners are unable to obtain financial assistance from other sources. Low-income is defined as 50% of the median income of the area (county). Grants are also available to low-income residents greater than 62 years of age. A lifetime grant of \$7,500 is available.

Last year Kentucky was allocated \$1.2 million to the loan program and \$632,000 to the grant program. This was substantially above the original allotment and the additional money came from special projects. Thirty to forty percent of the money went to the Hazard office and 25% went to the Morehead office.

There is great interest on the part of the local USDA office in utilizing Section 504 and 502 funds for onsite sewage. Although matching funds are not necessary, they do help assure funding for such projects. Matching funds can come from CDBG, EPA, or SRF.

Three states use USDA money to fund onsite projects, most often in combination with SRF funds.

### ***USDA Rural Utilities Service***

These USDA funds are available to public entities or nonprofit groups as loans and direct grants. Applicants must reside in an area of less than 5,500 people and unable to obtain funding from other sources. Grants can be made for up to 75% of the eligible project cost. Typically, the money has been used to expand sewer lines and plants. The only way to utilize funds from this program for onsite sewage would be to loan money to a county government to repair a group of failed onsite systems.

### ***U.S. EPA Hardship Grants***

This is a \$50 million U.S. EPA program that makes grants to states, which in turn can provide assistance to improve wastewater treatment services in poor or rural communities with a population of 3,000 or under. This program is coordinated through the SRF program. This form of assistance can only be used for planning, design, and construction of publicly owned treatment works and alternative wastewater systems. Kentucky has received \$1,432,620 in hardship grants last year. The state provided a \$68,220 match. This money is being used to provide sewers for six areas of the state.

Ohio utilized its U.S. EPA hardship grant to set up county low-interest loan programs to address failing on-lot wastewater treatment systems.

### ***U.S. EPA Section 319 Non-Point Source Program***

Kansas and Kentucky have both used U.S. EPA section 319 money for onsite septic system projects, although Kentucky's program tends to fund educational-based (demonstration) projects. The 319 program requires a 40% non-federal match. Kentucky received \$3.4 million this year for the 319 program. Even though straight pipes are point discharges, the 319 program considers them a nonpoint source problem and thus their removal can be funded through the 319 program. Grants have been used to fund basin-level projects.

## ***Other Funding Sources***

- **State General Funds** – Direct State appropriations can be used to establish revolving or grant programs for onsite sewage. Connecticut, Virginia and Wisconsin utilize general funds as a revenue source.
- **User Fees/ Surcharges** – Some states have set up user fees to help fund onsite loan and grant programs. For example, Kansas uses a combination of user fees on various activities supplemented with money from their general fund
- **State Bonds** – Kentucky currently uses state bonds to match its share of the state revolving loan fund. Both Maine and Massachusetts utilize bonds to fund their onsite sewage program. In 1996, Massachusetts issued a \$30 million bond to fund its SRF program.
- **Earmarking of State Funds** – Some states earmark state funds to onsite programs. Oklahoma collects money for its program from fines collected by its Department of Environmental Protection. Kentucky might consider earmarking a portion of state funds (coal severance tax or other state revenue sources) to fund an onsite sewage loan and/or grant program.
- **Other Federal Grants** – the Kentucky, the \$6.2 million PRIDE onsite revolving loan program was established through a federal NOAA grant. The U.S. Corps of Engineers also financed a PRIDE onsite grant program.

## **II. Selected State Case Studies**

### ***Kansas (1989)***

Kansas established a cost share/grant program (Water Control Fund) in 1989 to fund onsite sewage systems. General funds and user fees on industrial water use, pesticide sales, fertilizer sales, and municipal water use finance the program. General funds are the largest single source of funding for the grant program (36%). The Water Control Fund is used as a cost share program that has a 60/40 split with the state paying 60% of the cost of repair or replacement of onsite systems. Water Control Funds are also used to match U.S. EPA 319 nonpoint source grant funds to address onsite sewage problems

### ***Ohio (1997)***

Ohio uses various sources to fund onsite systems including Community Development Block Grants, and the USDA Rural Housing Service grants. Ohio also uses SRF funds to finance a pilot onsite loan program. Ohio set up a pilot Link Deposit Loan Program in two counties to make SRF loans available for onsite systems through local banks. Counties participating in the pilot program were required to first submit a management plan detailing onsite sewage needs. The pilot program funded 10 loans. Ohio discovered through its pilot program that applicants were opting for home equity loans since the interest rates of the Direct Link Program were only 2 to 3% below most equity loan rates. Ohio plans to implement the Direct Link Program statewide. State officials hope that proposed stronger septic system regulations and a requirement that all counties develop onsite management plans will generate additional interest in the loan program.

For low-income applicants that cannot qualify for loans, state and local officials use CDBG and USDA grants to help fund onsite systems.

### ***Virginia (1996)***

Virginia relies on SRF funds to finance its onsite sewage loan program. Each local government received an allotment to set up a local SRF onsite loan program. Initially, the state had problems getting people interested in the loans, even with a massive grassroots campaign, because the interest rates were set at a level so as not to compete with the banks. Eventually, the state lowered the interest rates to attract customers. However, even with lower rates state officials report the program has not been very successful because of a lack of flexibility at the local level, a lack of public interest, restrictions on the type of onsite systems that can be funded, and a lack of enforcement of onsite sewage rules. The Virginia contact indicated that unless enforcement is beefed up, the program is likely to end.

### ***Pennsylvania (1994)***

Pennsylvania runs its onsite loan program out of the Pennsylvania Infrastructure Investment Authority (PENNVEST). The program is set up to use SRF and Community Development Block Grants to make loans to banks participating in the program.

The interest rate is set at 1% and the loan is secured by a mortgage on the borrower's home. The family's income cannot exceed 150% of the statewide median household income. To qualify for a loan an applicant must be able to repay the loan. Loans are not available to applicants that are a part of community wastewater collection system or will be in a system within five years. In addition, there is a maintenance requirement as part of the loan. Finally, if the property is sold or transferred the loan must be repaid immediately.

The Pennsylvania contact indicated that the program suffers from paperwork problems and a low participation rate. Officials indicate that more needs to be done to identify and convince those in need of onsite system repairs to undertake them. Lack of enforcement of state onsite sewage rules is cited as the problem that has kept participation in the loan program low.

### ***Wisconsin (1978)***

Wisconsin's onsite grant program started in 1978. General funds are used to fund the program. The average yearly budget of the program is \$3.5 million. Since 1978, the state has spent \$58 million to assist 28,200 business and residents. There has been so much demand for grants that the state is considering changing the program from a grant to a loan program.

The grant structure is tiered based on income. Applicants with an income of under \$32,000 can receive a full grant. The application fee can range from \$50 to \$200. In addition, the home has to have been constructed before 1978, not located in a sewered area, occupied at least 51% of the year, and meet certain financial requirements.

Counties have the responsibility of administering the program. They are required to establish a timetable of inspection and maintenance for all new and replacement systems, establish user charges to administer the program, and certify that the owner meets the necessary requirements for participation. One problem cited by counties is the expense associated with administering the program such as mailing out thousands of pump-out notices each year.

### ***Maine (1982)***

Maine established several programs to fund onsite sewage systems. One such program is the Small Community Grant Program. This program is administered by the Maine Department of Environmental Protection and provides onsite system grants from 25% to 100% of the cost of replacement or repair. The program is funded by a state bond issue and usually allocates \$1 million per year to fix about 200 systems. State officials report that this has been a very successful program and has generated a lot of interest. Grants are not given to individuals but rather to local governments.

USDA Section 504 loans are also used to fund onsite systems in Maine. The state's major onsite program, however, is the FixMe Program that uses SRF monies, bond money, and CDBG. The program spends about \$12 million annually and offers 1% loans, which are administered through local community action agencies. FixMe addresses more than just septic systems — it is used for general home repair.

Of note, Maine has comprehensive planning and zoning that prohibits construction if a sewer or septic system cannot be installed. The programs are also coupled with a strong enforcement program.

### ***North Carolina (1996)***

North Carolina initiated its Wastewater Discharge Elimination Program in 1996 with a primary focus on eliminating straight pipes. North Carolina is currently in the process of initiating a statewide survey of straight pipes and failed onsite systems. The surveys are being financed by counties at an estimated cost of \$30,000. The state is providing technical and training assistance for surveyors. North Carolina is seeking state funds to assemble a state action team to help survey counties. A Clean Water Management Trust Fund has been established with state monies to provide low-interest revolving loan and grants to eliminate straight pipes and upgrade septic systems. Once the survey is complete, counties will make proposals to the state to establish local onsite loan programs. In this way, the state can prioritize the expenditure of funds. The state proposes to use a combination of SRF, CDBG, USDA grants, and state funds to finance a loan program for the repair or replacement of failed systems. The counties will administer the program and make actual loans and grants.

North Carolina has also created the Small Town Environmental Project. Five counties have implemented this program. The program is similar to Habitat for Humanity in that local communities are responsible for all aspects of the repair and/or removal of failed systems. The program relies on local resources and CDBG grants to repair onsite systems. The Rensselaerville Institute provides technical support for the program. Each county or city is responsible for organizing volunteers, identifying contractors, and getting bids.

### **III. General Conclusions**

- Onsite loan programs must be coupled with enforcement. Without strong enforcement, programs have not been very successful because of low participation rates.
- Most of the states with onsite funding programs use a combination of funding sources such as general funds, CDBG, SRF, U.S. EPA 319 and USDA grants to fund onsite loan/grant programs.
- All states with onsite loan programs contacted have an operation and maintenance requirement for repaired or replaced onsite systems.
- Most state onsite loan programs do not fund new home onsite systems.
- Program administration (paperwork) seems to be a major problem with many onsite loan programs, especially in regard to SRF funded programs.
- Most states use some type of local entity to administer onsite loan programs. Some use local governments or banks to issue loans and track responsibilities of loans. Usually, some type of agreement is reached that allows the local entity to recover administrative costs.
- Some states and local governments have developed creative funding sources and programs such as the North Carolina Small Town Environmental Project and Maine's FixMe Program to address onsite sewage as part of an overall effort to rehabilitate substandard housing.

#### **IV. Survey Sources**

Russ Thomas- USDA Rural Housing Service, Kentucky Office

Vernon Brown- USDA Rural Utilities Service, Kentucky Office

Jack Hanna- Ky. Department for Local Government

Bill Gatewood- Ky. Division of Water, Wastewater Branch

Corinne Wells- Ky. Division of Water, Nonpoint Source Program

Richard Green- Maine Small Communities Grant Program

Jean Caudill- Ohio Department of Health

Michael Gallagher- Pennsylvania Infrastructure Investment Authority

Frank Schawb- Connecticut Department for Environmental Protection

Debra Baker- Kansas State Water Plan Fund

Terrell Jones- North Carolina Waste Water Discharge Elimination Program

Bill Warden- Oklahoma Department of Environmental Quality

James Rearden- Rhode Island Community Septic System Loan Program

Donnie Wompler- Virginia Department of Environmental Quality

Rowan Kominsky- Wisconsin Department of Commerce

Pamela Truesdale- Massachusetts Regional Contact Title 5

Joe McNealy- Massachusetts Department for Environmental Protection

Allen Farling- Delaware

Ralph Turnbo- Mississippi Division of Water

Larry Robinson- Wyoming

Marilyn Eaton- Ky. Infrastructure Authority, State Revolving Loan Program

*Survey of funding sources prepared by Erik Siegel, Kentucky Environmental Quality Commission, as part of Onsite Sewage: Roundtable Discussion of Policy Issues/Options, August/September 1999.*

**ONSITE SEWAGE IN KENTUCKY:  
APPENDIX C**

**Minnesota Septic System Disclosure Law Amendment  
see SUBDIVISION 6**

**115.55 Individual sewage treatment systems.**

Subdivision 1. **Definitions.** (a) The definitions in this subdivision apply to this section and section 115.56.

(b) "Advisory committee" means the advisory committee on individual sewage treatment systems established under the individual sewage treatment system rules. The advisory committee must be appointed to ensure geographic representation of the state and include elected public officials.

(c) "Applicable requirements" means:

- (1) local ordinances that comply with the individual sewage treatment system rules, as required in subdivision 2; or
- (2) in areas not subject to the ordinances described in clause (1), the individual sewage treatment system rules.

(d) "City" means a statutory or home rule charter city.

(e) "Commissioner" means the commissioner of the pollution control agency.

(f) "Dwelling" means a building or place used or intended to be used by human occupants as a single-family or two-family unit.

(g) "Individual sewage treatment system" or "system" means a sewage treatment system, or part thereof, serving a dwelling, other establishment, or group thereof, that uses subsurface soil treatment and disposal.

(h) "Individual sewage treatment system professional" means an inspector, installer, site evaluator or designer, or pumper.

(i) "Individual sewage treatment system rules" means rules adopted by the agency that establish minimum standards and criteria for the design, location, installation, use, and maintenance of individual sewage treatment systems.

(j) "Inspector" means a person who inspects individual sewage treatment systems for compliance with the applicable requirements.

(k) "Installer" means a person who constructs or repairs individual sewage treatment systems.

(l) "Local unit of government" means a township, city, or county.

(m) "Pumper" means a person who maintains components of individual sewage treatment systems including, but not limited to, septic, aerobic, and holding tanks.

(n) "Seasonal dwelling" means a dwelling that is occupied or used for less than 180 days per year and less than 120 consecutive days.

(o) "Site evaluator or designer" means a person who:

- (1) investigates soils and site characteristics to determine suitability, limitations, and sizing requirements; and
- (2) designs individual sewage treatment systems.

**Subd. 2. Local ordinances.**

(a) All counties that did not adopt ordinances by May 7, 1994, or that do not have ordinances, must adopt ordinances that comply with individual sewage treatment system rules by January 1, 1999, unless all towns and cities in the county have adopted such ordinances. County ordinances must apply to all areas of the county other than cities or towns that have adopted ordinances that comply with this section and are as strict as the applicable county ordinances. Any ordinance adopted by a local unit of government before May 7, 1994, to regulate individual sewage treatment systems must be in compliance with the individual sewage treatment system rules by January 1, 1998.

(b) A copy of each ordinance adopted under this subdivision must be submitted to the commissioner upon adoption.

(c) A local unit of government must make available to the public upon request a written list of any differences between its ordinances and rules adopted under this section.

**Subd. 3. Rules.** (a) The agency shall adopt rules containing minimum standards and criteria for the design, location, installation, use, and maintenance of individual sewage treatment systems. The rules must include:

- (1) how the agency will ensure compliance under subdivision 2;
  - (2) how local units of government shall enforce ordinances under subdivision 2, including requirements for permits and inspection programs;
  - (3) how the advisory committee will participate in review and implementation of the rules;
  - (4) provisions for alternative systems;
  - (5) provisions for handling and disposal of effluent;
  - (6) provisions for system abandonment;
  - (7) procedures for the commissioner to approve new individual sewage treatment system technologies; and
  - (8) procedures for variances, including the consideration of variances based on cost and variances that take into account proximity of a system to other systems.
- (b) The agency shall consult with the advisory committee before adopting rules under this subdivision.

**Subd. 4. Compliance with rules required; enforcement.**

(a) A person who designs, installs, alters, repairs, maintains, pumps, or inspects all or part of an individual sewage treatment system shall comply with the applicable requirements.

(b) Local units of government may enforce, under section 115.071, subdivisions 3 and 4, ordinances that are applicable requirements.

**Subd. 5. Inspection.** (a) An inspection shall be required for all new construction or replacement of a system to determine compliance with agency rule or local standards. The manner and timing of inspection may be determined by the applicable local ordinance. The inspection requirement may be satisfied by a review by the designated local official of video, electronic, photographic, or other evidence of compliance provided by the installer.

(b) Except as provided in subdivision 5b, paragraph (b), a local unit of government may not issue a building permit or variance for the addition of a bedroom on property served by a system unless the system is in compliance with the applicable requirements, as evidenced by a certificate of compliance issued by a licensed inspector or site evaluator or designer. A local unit of government may temporarily waive the certificate of compliance requirement for a building permit or variance for which application is made during the period from November 1 to April 30, provided that an inspection of the system is performed by the following June 1 and the applicant submits a certificate of compliance by the following September 30. This paragraph does not apply if the local unit of government does not have an ordinance requiring a building permit to add a bedroom.

(c) A certificate of compliance for an existing system is valid for three years from the date of issuance unless the local unit of government finds evidence of an imminent threat to public health or safety requiring removal and abatement under section 145A.04, subdivision 8.

(d) A certificate of compliance for a new system is valid for five years from the date of issuance unless the local unit of government finds evidence of an imminent threat to public health or safety requiring removal and abatement under section 145A.04, subdivision 8.

(e) A licensed inspector who inspects an existing system may subsequently design and install a new system for that property, provided the inspector is licensed to install individual sewage treatment systems.

**Subd. 5a. Inspection criteria for existing systems.**

(a) An inspection of an existing system must evaluate the criteria in paragraphs (b) to (j).

(b) If the inspector finds one or more of the following conditions:

- (1) sewage discharge to surface water;
- (2) sewage discharge to ground surface;
- (3) sewage backup; or

(4) any other situation with the potential to immediately and adversely affect or threaten public health or safety, then the system constitutes an imminent threat to public health or safety and, if not repaired, must be upgraded, replaced, or its use discontinued within ten months of receipt of the notice described in subdivision 5b, or within a shorter period of time if required by local ordinance.

(c) An existing system that has none of the conditions in paragraph (b), and has at least two feet of soil separation need not be upgraded, repaired, replaced, or its use discontinued, notwithstanding any local ordinance that is more restrictive.

(d) Paragraph (c) does not apply to systems in shoreland areas regulated under sections 103F.201 to 103F.221, wellhead protection areas as defined in section 103I.005, or those used in connection with food, beverage, and lodging establishments regulated under chapter 157.

(e) If the local unit of government with jurisdiction over the system has adopted an ordinance containing local standards pursuant to subdivision 7, the existing system must comply with the ordinance. If the system does not comply with the

ordinance, it must be upgraded, replaced, or its use discontinued according to the ordinance.

(f) If a seepage pit, drywell, cesspool, or leaching pit exists and the local unit of government with jurisdiction over the system has not adopted local standards to the contrary, the system is failing and must be upgraded, replaced, or its use discontinued within the time required by subdivision 3 or local ordinance.

(g) If the system fails to provide sufficient groundwater protection, then the local unit of government or its agent shall order that the system be upgraded, replaced, or its use discontinued within the time required by rule or the local ordinance.

(h) The authority to find a threat to public health under section 145A.04, subdivision 8, is in addition to the authority to make a finding under paragraphs (b) to (d).

(i) Local inspectors must use the standard inspection form provided by the agency. The inspection information required by local ordinance may be included as an attachment to the standard form. The following language must appear on the standard form: "If an existing system is not failing as defined in law, and has at least two feet of design soil separation, then the system need not be upgraded, repaired, replaced, or its use discontinued, notwithstanding any local ordinance that is more strict. This does not apply to systems in shoreland areas, wellhead protection areas, or those used in connection with food, beverage, and lodging establishments as defined in law."

(j) For the purposes of this subdivision, an "existing system" means a functioning system installed prior to April 1, 1996.

**Subd. 5b. Compliance notice.** (a) If a system inspected under subdivision 5 is required to be upgraded, replaced, or its use discontinued under subdivision 5a, the inspector or site evaluator or designer must issue a notice of noncompliance to the property owner and must provide a copy of the notice to the unit of government with jurisdiction. The notice of noncompliance must specify why the system must be upgraded, replaced, or its use discontinued. A local unit of government must specify the upgrade time period in its ordinance.

(b) Except as provided in subdivision 5a, paragraphs (b) to (d), if a system installed between May 27, 1989, and January 23, 1996, does not comply with applicable requirements, the property owner has five years from the date of the bedroom building permit to bring the system into compliance.

**Subd. 6. Disclosure of individual sewage treatment system to buyer.** (a) Before signing an agreement to sell or transfer real property, the seller or transferor must disclose in writing to the buyer or transferee information on how sewage generated at the property is managed. The disclosure must be made by delivering a statement to the buyer or transferee that either:

- (1) the sewage goes to a facility permitted by the agency;  
or
- (2) the sewage does not go to a permitted facility, is therefore subject to applicable requirements, and describes the

system in use, including the legal description of the property, the county in which the property is located, and a map drawn from available information showing the location of the system on the property to the extent practicable. If the seller or transferor has knowledge that an abandoned individual sewage treatment system exists on the property, the disclosure must include a map showing its location. In the disclosure statement the seller or transferor must indicate whether the individual sewage treatment system is in use and, to the seller's or transferor's knowledge, in compliance with applicable sewage treatment laws and rules.

(b) Unless the buyer or transferee and seller or transferor agree to the contrary in writing before the closing of the sale, a seller or transferor who fails to disclose the existence or known status of an individual sewage treatment system at the time of sale, and who knew or had reason to know of the existence or known status of the system, is liable to the buyer or transferee for costs relating to bringing the system into compliance with the individual sewage treatment system rules and for reasonable attorney fees for collection of costs from the seller or transferor. An action under this subdivision must be commenced within two years after the date on which the buyer or transferee closed the purchase or transfer of the real property where the system is located.

#### **Subd. 7. Local standards.**

##### **(a) Existing systems.**

Counties may adopt by ordinance local standards that are less restrictive than the agency's rules in order to define an acceptable existing system. The local standards may include soil separation, soil classification, vegetation, system use, localized well placement and construction, localized density of systems and wells, extent of area to be covered by local standards, groundwater flow patterns, and existing natural or artificial drainage systems. The local standards and criteria shall be submitted to the commissioner for comment prior to adoption to demonstrate that, based on local circumstances in that jurisdiction, they adequately protect public health and the environment.

(b) **New or replacement systems.** Counties, after providing documentation of conditions listed in this paragraph to the commissioner, may adopt by ordinance local standards that are less restrictive than the agency's rules for new system construction or replacement in areas of sustained and projected low population density where conditions render conformance to applicable requirements difficult or otherwise inappropriate. Documentation may include a map delineating the area of the county to be served by the local standards, a description of the hardship that would result from strict adherence to the agency's rules, and evidence of sustained and projected low population density. The local standards must protect human health and the environment and be based on considerations that may include, but need not be limited to, soil separation, soil classification, vegetation, system use, localized well placement and construction, localized density of systems and wells, extent of area to be covered by local standards, groundwater flow patterns, and existing natural or artificial drainage systems.

The local standards must provide cost-effective and long-term treatment alternatives. The draft ordinance incorporating the local standards must be submitted to the local water planning advisory committee, created under section 103B.321, subdivision 3, and then submitted with justification to the commissioner 30 days before adoption for review and comment.

(c) **New or replacement systems; local ordinances.** A local unit of government may adopt and enforce ordinances or rules affecting new or replacement individual sewage treatment systems that are more restrictive than the agency's rules.

(d) **Local standards; conflict with state law.** Local standards adopted under paragraph (a) or (b) must not conflict with any requirements under other state laws or rules or local ordinances, including, but not limited to, requirements for:

(1) systems in shoreland areas, regulated under sections 103F.201 to 103F.221;

(2) well construction and location, regulated under chapter 103I; and

(3) systems used in connection with food, beverage, and lodging establishments, regulated under chapter 157.

The local standards must include references to applicable requirements under other state laws or rules or local ordinances.

**Subd. 8. New technologies.** New individual sewage treatment system technologies may be installed as warrantied systems if not specifically prohibited in local ordinance, provided however that the manufacturer or designer provides to the commissioner documentation of the following:

(1) how the technology must be used and installed, how it is expected to perform under those conditions, the anticipated design life, and the period to be warrantied under clause (4);

(2) pertinent existing data, including in-field testing data, that the system will perform as expected;

(3) financial assurance or documentation of the manufacturer's or designer's financial ability to cover potential replacement and upgrades necessitated by the system failing to meet the performance expectations of clause (1) for the duration of the warranty period; and

(4) a full warranty effective for the designated warranty period in clause (1), which must be at least five years from the time of installation, covering design, labor, and material costs to remedy failure to meet performance expectations in clause (1) for systems used and installed in accordance with the manufacturer's or designer's instructions.

The commissioner must make available a list of warrantied systems for which documentation has been provided to the commissioner under this subdivision.

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## **ONSITE SEWAGE IN KENTUCKY: APPENDIX D**

### **Model County Ordinance Regarding Sewage Treatment and Disposal and Connection to Sewer System<sup>10</sup>**

An ordinance requiring residents of \_\_\_\_\_ County to connect to an approved onsite wastewater system or a public sewer system if available; and establishing penalties.

**WHEREAS**, the \_\_\_\_\_ County Fiscal Court has deemed it advisable and necessary in order to protect the public health and promote the general welfare of the people of \_\_\_\_\_ County, that all sources of flowable sewage be connected to an approved, appropriately functioning, onsite sewer or a public sewer system if available;

**NOW THEREFORE**, the Fiscal Court of \_\_\_\_\_ County, Kentucky, does ordain as follows:

#### **SECTION 1: PROHIBITED FACILITIES**

A. From the effective date of this Ordinance, it shall be unlawful for any person owning any occupied building within the County to construct, install, use or maintain any straight pipe, privy, cesspool, sinkhole, or other receptacle for the purpose of discharging from or receiving sewage on such premises.

B. From the effective date of this Ordinance, the construction, installation, use, or maintenance of any such straight pipe, privy, cesspool, sinkhole, or other receptacle for receiving sewage on premises within the County shall be deemed and is hereby declared to be a public nuisance, is unlawful, and an owner of such facilities be subject to the penalties set out herein.

#### **SECTION 2: WHERE PUBLIC SEWER IS NOT AVAILABLE**

A. From the effective date of this Ordinance, where a public sewer system is not available, the property owner shall be responsible to connect or have connected any and all newly constructed and/or substantially renovated, occupied buildings to an onsite wastewater disposal system. The type, capacity, location and layout of any and/or all on-site sewer systems shall comply with the provisions of \_\_\_\_\_ County Health Department and/or other applicable local and state regulations, including KRS 211.350 relating to certification of an approved onsite sewer system and KRS 224 regarding the permit requirements of the Kentucky Pollutant Discharge Elimination System.

B. The property owner shall operate and maintain the onsite sewer disposal system in a sanitary manner at all times. Discharge of septic tank effluent or effluent of any other approved sewage disposal system to any open drain, ditch, stream, or well penetrating water-bearing formations shall be prohibited, with the exception that holders of current NPDES/KPDES permits may discharge to permitted discharge points provided they are in compliance with the issuing authority.

C. No statement contained in this Article shall be construed to interfere with any other requirements that may be imposed by applicable local or state laws or regulations.

#### **SECTION 3: WHERE PUBLIC SEWER IS AVAILABLE**

A. Improved premises currently accessible to a public sewer system:

- i. All persons owning property within the County, upon which there is any existing, occupied building which property is accessible to a public sewer system, shall, at their own expense, make a sewer service connection to the public sewer system, in accordance with the provisions of this ordinance.

- ii. Said connection shall be made in a timely manner so as not to interrupt the schedule of construction or within three (3) months from the date such sewer line is installed and place in operation, whichever is more appropriate.
  - iii. Premises are deemed accessible to a public sewer if the system's sewer line is located within reasonable proximity of the property boundary. (Reasonable proximity will be determined by the public sewer system's project engineer on a case-by-case basis taking into consideration engineering feasibility and cost).
  - iv. The property owner's sewer line material and manner of connection must comply with the regulations of the connecting facility.
  - v. Failure to connect to a public sewer system under the conditions outlined above is hereby declared to be unlawful and to constitute a nuisance.
- B. Improved premises which subsequently become accessible to a public sewer system:
- i. All person owning any occupied building with the County, upon which premisses in the future become accessible to a public sewer system shall, at their own expense, make a sewer service connection to the public sewer system, in accordance with the provisions of this Ordinance and according to regulations and procedures as the system may establish by ordinance.
  - ii. Said connection shall be made within three (3) months from the date such sewer line is installed and placed in operations.
  - iii. Premises are deemed accessible to a public sewer if the sewer system's line is located within reasonable proximity of the property boundary line. (Reasonable proximity will be determined by the public sewer system's project engineer on a case-by-case basis taking into consideration engineering feasibility and cost).
  - iv. Failure to connect to a public sewer system under the conditions outlined above is hereby declared to be unlawful and to constitute a nuisance.
- C. New construction on properties accessible to a public sewer system:
- i. All persons owning property within the County that are accessible to a public sewer system, and upon which an occupied building is subsequently erected shall, at their own expense, make a sewer service connection to the public sewer system, in accordance with the provisions of this ordinance.
  - ii. Said connection shall be made at the time the building is erected. All sewer service connections to the public sewer systems shall be made in accordance with the requirements and established procedures of said systems.
  - iii. Premises are deemed accessible to a public sewer if the sewer system connection is located within reasonable proximity of the property boundary line. (Reasonable proximity will be determined by the public sewer system's project engineer on a case-by-case basis taking into consideration engineering feasibility and cost).
  - iv. Failure to connect to a public sewer system under the conditions outlined above is hereby declared to be unlawful and to constitute a nuisance.
- D. Permanency of connection:
- i. Once a property is served by a specific public sewer system and connection is made to said system the owner may not remove, disconnect, or otherwise interrupt the flow of sewage to that system for the purpose of constructing or installing an alternative on-site treatment system or connecting to another sewer system unless so directed by the County Health Department or the Division of Water, Kentucky Cabinet for Natural Resources and Environmental Protection.

#### **SECTION 4: PUBLIC SEWER CONNECTION WAIVER**

Any persons owning property within the county upon which there is any existing, occupied building, which is accessible to a public sewer system, or any persons owning any occupied building within the County upon which premises at a future date become accessible to a public sewer system can apply for a waiver of service if said person can document s/he has a permitted, functioning septic tanks, wetlands, aerator system, or other systems approved by the County health department or permitted by the Division of Water, which has been installed with the last three (3) calendar years from the date of sewer service availability. Said person must

provide documentation from the health department that their operating system is permitted and functioning. If such documentation is provided, said person will receive a onetime waiver to serve the site(s) in question until the onsite system fails and permit for same is revoked. Once the operating system fails and the permit is revoked, said person must comply in full with the provisions of this Ordinance and no other waiver will be provided.

## **SECTION 5: EXCLUSION OF STORM WATER RUNOFF**

A. The discharge of storm water runoff or other surface water into a public sewer system is hereby prohibited.

B. All persons proposing to connect to the public sewer system shall provide adequate means for excluding storm water runoff such as from roof drains or foundation drains, or other surface waters from being discharged into the sewer system.

C. No person once connected to a public sewer shall subsequently connect to any roof drain or foundation drain thereto or permit any such drains to remain connected thereto, nor shall the permit, allow or cause to enter into any public sewer any other surface water from any other source.

## **SECTION 6: PENALTIES**

Any person, firm, or corporation violating any of the provisions of this ordinance, or failing or refusing to comply with same shall be fined not less than fifty dollars (\$50.00) nor more than five hundred dollars (\$500.00) for each offense. Each day such person, firm or corporation fails or refuses to comply with the specific directions of this ordinance, shall constitute a separate offense.

## **SECTION 7: NONINTERFERENCE WITH FUTURE REGULATIONS**

No statement contained in this Ordinance shall be construed to interfere with any other requirements that may be imposed by applicable local or state laws or regulations. If any clause, provision or section of this Ordinance shall be ruled void or unenforceable by any court or competent jurisdiction, the remainder of this Ordinance shall be enacted and shall be in force and effect notwithstanding.

## **SECTION 8: AUTHORIZATION TO FILE**

Following the adoption of this Ordinance, the County Judge/Executive is hereby authorized and directed to file a certified copy of this Ordinance with the County Clerk of \_\_\_\_\_ County.

## **SECTION 9: NON-CONFLICT WITH OTHER REGULATIONS**

All ordinances, resolutions, and orders and parts thereof, and particularly any ordinances heretofore adopted that are in conflict herewith are hereby repealed to the extent of such conflict.

## **SECTION 10: EFFECTIVE DATE**

This ordinance shall become effective immediately upon its adoption, approval, and publication as provided by law.

Adopted and approved \_\_\_\_\_ County Judge/Executive \_\_\_\_\_

Attest \_\_\_\_\_ County Clerk \_\_\_\_\_

## **Oldham County Resolution Adopting Standards for Discharge of Sewage and Requiring Connection to Public Sewers**

**BE IT RESOLVED** that the Oldham County Board of Health adopts the following regulations pursuant to KRS 212.230.

### Discharge of Sewage

- |            |  |
|------------|--|
| Section 1. | No person, firm, corporation, public utility, municipally, public agency, or institution shall maintain, upon any original lot, subdivision lot or parcel of ground situated on any street, alley or road in Oldham County, where there is a public sewer available for connection to such unit of ground, any system of disposal of human excreta except by means of water closets connected to public sewer. |
| Section 2. | All water closets shall be furnished with a supply of running water under sufficient pressure to provide proper flushing, and shall be maintained so as not to endanger the public health or otherwise create a nuisance.  |
| Section 3. | It shall be the duty of the owner or owners of every lot, subdivision or parcel of ground required by Section 1 of this regulation to be connected with the public sewer, to so connect such lot or parcel within 12 months of notification that such sewer is available for connection, or as otherwise ordered by the Board of Health.   |
| Section 4. | No sewer, industrial waste or other objectionable material shall be discharged into any public sewer, house connection sewer, industrial connection sewer, storm water sewer, or drain unless it conforms to the standards and requirements of all applicable state and local regulations.   |

Effective Date: September 24, 1999

## ONSITE SEWAGE IN KENTUCKY: FOOTNOTES

1. Invited Roundtable participants not attending were:

Bob Logan, Commissioner, Ky. Department for Environmental Protection

John Weikell, Ky. Assn. of Realtors

Debra Stamper, Ky. Bankers Assn.

Rebecca Freeman, Ky. Farm Bureau

Barry Tinning, Council of State Governments

Robert Weiss, Home Builders Assn. of Ky.

Carroll Smith, Letcher County Judge-Executive

2. *Still Living Without the Basics*, Rural Community Assistance Program, 1995.

3. *Kentucky Report to Congress on Water Quality*, Kentucky Division of Water, 1997.

4. KRS 211.350 - 211.380 - establishes CHS's specific authority relative to on-site sewage disposal systems which have a subsurface discharge, and provides for the certification of inspectors and installers of such systems, adoption of regulations to carry out this authority, and for other related matters.

5. KRS 212.210 - establishes joint authority between CHS and the local boards of health to investigate nuisances, sources of filth, and causes of sickness with 212.990 setting the penalties. They are generally \$10 - \$100 per day per incident.

6. KRS 211.355 requires each local board of health to set fees sufficient to cover the full cost of administering the onsite sewage program.

7. Based on an EQC survey of local health departments conducted Sept. 1999.

8. KRS 224.033 - "... the Cabinet shall have the authority, power, and duty to ... provide for the prevention abatement, and control of all water ... pollution ..." Kentucky Administrative Regulations, Title 401, Chapter 5 were promulgated to address water pollution and sewage treatment. These regulations establish requirements for construction and discharge permits, reporting spills and bypasses, certification of operators, and protection of water quality.

9. Based on endorsement expressed by a strong majority of the 24 participants of the Onsite Sewage Roundtable submitting Feedback Forms.

10. Model ordinance prepared by the Big Sandy Area Development District.